Project Design Phase – I
Problem - Solution Fit

Date	01 October 2022
Team ID	PNT2022TMID30150
Project Name	VIRTUAL EYE - LIFE GUARD FOR SWIMMING POOLS TO DETECT ACTIVE DROWNING
Maximum Marks	2 Marks

Problem Solution Fit

Define CS, fit into CC	**1. CUSTOMER SEGMENT(S)** CS Swimmers and Ordinary people, Organization and Trainers	**6. CUSTOMER CONSTRAINTS** CC It will be Affordable and Device compatibility and User-friendly device	**5. AVAILABLE SOLUTIONS** AS The existing solution which gets the data and after training the model, predicts the results. Various software and device have been developed but not gives high accuracy rate	Explore AS, differentiate
Focus on J&P, tap into BE, understand RC	**2. JOBS-TO-BE-DONE / PROBLEMS** J&P Lifeguards and trainers can't monitor all the swimmers /persons at a same time Detection system to detect drowning persons was not fast and accurate	**9. PROBLEM ROOT CAUSE** RC The possibilities of detection of drowning were not up to the expected level and accuracy rate of the detection of existing system was low so there is a need for developing a system with high accuracy rate in detection	**7. BEHAVIOUR** BE Get information from others Search and learn about drowning detection system Search for solution in online	Focus on J&P, tap into BE, understand RC
Identify strong TR & EM	**3. TRIGGERS** TR Death rate of drowning was become high nowadays. System to detect drowning was not give high accuracy rate **4. EMOTIONS: BEFORE / AFTER** EM Before: Insecure and stressful After: Relaxed, Comfortable, feel secure	**10. YOUR SOLUTION** SL Using CNN -YOLOv7 algorithm to detects the drowning people to get high and fast accuracy rate. It detects the drowning person and alerting by beep alarm and shows the exact position of a drowning person.	**8.CHANNELS of BEHAVIOUR** CH 8.1 ONLINE Share information, social media, Blogs 8.2 OFFLINE Monitor persons, Friends and Colleague, get help from lifeguards or trainers	Extract online & offline CH of BE